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| APPLICATION NO.     | FILING DATE    | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |  |
|---------------------|----------------|----------------------|-------------------------|------------------|--|
| 09/425,788          | 10/22/1999     | E. NOEL ABARRA       | 0941.63365              | 1025             |  |
| 7:                  | 590 12/18/2001 |                      |                         |                  |  |
| PATRICK G BURNS ESQ |                |                      | EXAMINER                |                  |  |
|                     | IS & CRAIN LTD |                      | RICKMAN, HOLLY C        |                  |  |
| SUITE 2500          | HOREK DIG VO   |                      |                         |                  |  |
| CHICAGO, IL 60606   |                |                      | ART UNIT                | PAPER NUMBER     |  |
|                     |                |                      | 1773                    | 13               |  |
|                     |                |                      | DATE MAILED: 12/18/2001 | _                |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

| . *  |  |                      |                        |  |  |  |  |
|--|--|----------------------|------------------------|--|--|--|--|
| _  |  | Applicatio           | n No.                  | Applicant(s)   |  |  |  |
| Office Action Summary  |  | 09/425,78            | 8                      | ABARRA ET AL.  |  |  |  |
|  |  | Examin r             |                        | Art Unit   |  |  |  |
|  |  | Holly Rick           | man                    | 1773   |  |  |  |
| Period fo  | - The MAILING DATE f this communication app<br>r Reply   | pears on the         | cover sheet with the c | orrespondence address                                |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  |  |                      |                        |  |  |  |  |
| If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).  Status |  |                      |                        |  |  |  |  |
| 1)⊠  | Responsive to communication(s) filed on 06 S   | September :          | <u> 2001</u> .         |  |  |  |  |
| 2a) <u></u>  | This action is <b>FINAL</b> . 2b)⊠ Th  | nis action is        | non-final.             | •  |  |  |  |
| 3)□  | <u>,                                    </u>   |                      |                        |  |  |  |  |
| Dispositi  | on of Claims   |                      |                        |  |  |  |  |
| 4)🖂  | Claim(s) 1-12 and 19-23 is/are pending in the  | application          |                        |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.   |  |                      |                        |  |  |  |  |
| 5)□  | Claim(s) is/are allowed.   |                      |                        |  |  |  |  |
| 6)🖂  | Claim(s) <u>1-12 and 19-23</u> is/are rejected.  |                      |                        |  |  |  |  |
| 7)   | Claim(s) is/are objected to.   |                      |                        |  |  |  |  |
| 8)□  | Claim(s) are subject to restriction and/o  | or election re       | equirement.            |  |  |  |  |
| Applicati  | on Papers  |                      |                        |  |  |  |  |
| 9) 🗆 -   | The specification is objected to by the Examine  | er.                  |                        |  |  |  |  |
| 10) 🔲 🗆  | The drawing(s) filed on is/are: a)☐ acce   | pted or b)           | objected to by the Exa | miner.   |  |  |  |
|  | Applicant may not request that any objection to th   | e drawing(s)         | be held in abeyance. S | ee 37 CFR 1.85(a).                                   |  |  |  |
| 11) 🔲 -  | The proposed drawing correction filed on   | _ is: a) <u> </u> ap | proved b) disappro     | oved by the Examiner.                                |  |  |  |
|  | If approved, corrected drawings are required in re   | ply to this Off      | fice action.           |  |  |  |  |
| 12) 🔲 🗆  | The oath or declaration is objected to by the Ex   | kaminer.             |                        |  |  |  |  |
| Priority u   | nder 35 U.S.C. §§ 119 and 120  |                      |                        |  |  |  |  |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  |  |                      |                        |  |  |  |  |
| a)⊠ All b)□ Some * c)□ None of:  |  |                      |                        |  |  |  |  |
| 1. Certified copies of the priority documents have been received.  |  |                      |                        |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No   |  |                      |                        |  |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  |  |                      |                        |  |  |  |  |
| * See the attached detailed Office action for a list of the certified copies not received.   |  |                      |                        |  |  |  |  |
| 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).   |  |                      |                        |  |  |  |  |
| a) ☐ The translation of the foreign language provisional application has been received. 15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  |  |                      |                        |  |  |  |  |
| Attachment(s)  |  |                      |                        |  |  |  |  |
| 2) Notic   | e of References Cited (PTO-892)<br>e of Draftsperson's Patent Drawing Review (PTO-948)<br>nation Disclosure Statement(s) (PTO-1449) Paper No(s) <u>8</u> | <b>]</b> .           |                        | y (PTO-413) Paper No(s) Patent Application (PTO-152) |  |  |  |

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#### DETAILED ACTION

| -    | •    | • .  |
|------|------|------|
| v.   | 410  | rity |
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|      |      |      |

1. The submission of a verified translation of Applicant's foreign priority document, JP 11-161329, is acknowledged.

## Double Patenting

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer <u>cannot</u> overcome a double patenting rejection based upon 35 U.S.C. 101.

- 3. Claim 1 is provisionally rejected under 35 U.S.C. 101 as claiming the same invention as claim 2 was candled that of claim 2 of copending Application No. 09/588,850. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.
- 4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPO 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

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provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR-3.73(b).

5. Claims 2-12 and 19-23 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 3-13 of copending Application No. 09/588,850. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claims are fully encompassed by the claims of 09/588,850.

The present claims are identical to claims 3-13 of 09/588,850 except that the present claims require that the magnetic layer and the ferromagnetic layer have antiparallel magnetizations.

It would have been obvious to modify the structure claimed in 09/588,850 to have antiferromagnetically coupled magnetic and ferromagnetic layers in order to produce a synthetic antiferromagnetic structure having a zero net magnetization.

With respect to the limitation in claims 19-23, "adapted for longitudinal magnetic recording", it has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138.

This is a <u>provisional</u> obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

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#### Claim Objections

6. Claim-8 is objected to because of the following informalities: the alloy "CrCr-M" should be "CoCr-M." For examination purposes, the claim has been interpreted as if "CoCr-M" was claimed.

Appropriate correction is required.

## Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 8. The rejections of claims 2, 4, 6, 8, 10, 14, 16, and 18 under 35 USC 112, second paragraph, are withdrawn in view of Applicant's amendments.
- 9. Claims 2, 6, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- Regarding claims 2 and 6, a broad range or limitation ("Co alloys"-in this case) together with a narrow range or limitation (the specific Co alloys claimed) that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then

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narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder-of-the-claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 2 and 6 recite the broad recitation "Co alloys", and the claim also recites "which include CoCrTa, CoCrPt and CoCrPt-M...." which is the narrower statement of the range/limitation.

#### Claim Rejections - 35 USC § 102

- 10. The rejection of claims 1-7 and 13-18 under 35 U.S.C. 102(b) as being anticipated by Fontana, Jr. et al. (US 5701223) is withdrawn in view of Applicant's arguments.
- 11. The rejection of claims 1-7 and 13-18 under 35 U.S.C. 102(b) as being anticipated by Kawato et al. ("Spin valve films with synthetic ferrimagnetic(Co/Ru/Co) for pinned layers", Kawato et al., Central Research Lab, Hitachi Ltd. Pp. 113-118) is withdrawn in view of Applicant's arguments.

# Claim Rejections - 35 USC § 103

12. The rejection of claims 1-18 under 35 U.S.C. 103(a) as being unpatentable over Honda et al. (US 5851643) in view of Bian et al. (US 6143388) is withdrawn in view of Applicant's arguments.

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| -Response-to-A | Arguments |
|----------------|-----------|
|----------------|-----------|

13. Applicant's arguments filed 9/6/01 have been considered but are moot in view of the new ground(s) of rejection.

#### Conclusion

- 14. The art made of record and not relied upon is considered pertinent to applicant's disclosure. Carey et al. (US 6280813) is cited as art of interest.
- 15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Holly Rickman whose telephone number is (703) 305-2642. The examiner can normally be reached on Monday-Friday 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Thibodeau can be reached on (703) 308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Holly Wish.
Holly Rickman

Examiner

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December 8, 2001

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